

WHAT IS CLAIMED IS:

1           1. A method for securing information associated with a content  
2 receiver that is part of a conditional access system, the method comprising steps of:  
3           selecting an object for monitoring;  
4           independently determining when the object should encounter a checkpoint  
5 that triggers at least one of authentication and authorization;  
6           independently monitoring that at least one of authentication and  
7 authorization is performed; and  
8           sending information regarding the monitoring away from the content  
9 receiver.

1           2. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, further  
3 comprising a step of preventing execution of the object in response to the monitoring  
4 step.

1           3. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, wherein:  
3           the determining step comprises a step of determining with an access  
4 control processor when the object should encounter the checkpoint, and  
5           the access control processor operates independent of a controller.

1           4. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, wherein:  
3           the monitoring step comprises a step of monitoring with an access control  
4 processor that at least one of authentication and authorization is performed, and  
5           the access control processor operates independent of a controller.

1           5. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, wherein the  
3 sending step comprises a step of sending information from an access control processor.

1           6. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, further  
3 comprising at least one of the following steps of:

4 changing authorization for the object;  
5 changing authorization for a functional unit other than the object;  
6 deleting the object from volatile memory;  
7 deleting the object from non-volatile memory;  
8 deleting the object from the content receiver; and  
9 stopping execution of the object.

1 7. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 1, further  
3 comprising steps of:

4 defining a period that the content receiver should perform the sending step  
5 within; and  
6 determining from a remote location if the content receiver has performed  
7 the sending step.

1 8. A method for securing information associated with a content  
2 receiver that is part of a conditional access system, the method comprising steps of:  
3 selecting an object for monitoring;  
4 determining when the object should encounter a checkpoint that triggers at  
5 least one of authentication and authorization;  
6 independently monitoring that at least one of authentication and  
7 authorization is performed; and  
8 preventing execution of the object in response to the monitoring step.

1 9. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, further  
3 comprising a step of sending monitoring information away from the content receiver to a  
4 headend.

1 10. The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, wherein:  
3 the determining step comprises a step of determining with an access  
4 control processor when the object should encounter the checkpoint, and  
5 the access control processor operates independent of a controller.

1           11.     The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, wherein:  
3                 the monitoring step comprises a step of monitoring with an access control  
4 processor that at least one of authentication and authorization is performed, and  
5                 the access control processor operates independent of a controller.

1           12.     The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, wherein the  
3 sending step comprises a step of sending information from an access control processor.

1           13.     The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, further  
3 comprising steps of:

4                 defining a period that the content receiver should perform the sending step  
5 within; and  
6                 determining from a remote location if the content receiver has performed  
7 the sending step.

1           14.     The method for securing information associated with the content  
2 receiver that is part of the conditional access system as recited in claim 8, further  
3 comprising at least one of the following steps of:

4                 changing authorization for the object;  
5                 changing authorization for a functional unit other than the object;  
6                 deleting the object from volatile memory;  
7                 deleting the object from non-volatile memory; and  
8                 deleting the object from the content receiver.

1           15.     A conditional access system for remotely controlling functional  
2 units in a content receiver, the conditional access system comprising:  
3                 a monitoring computer located remotely from the content receiver;  
4                 a functional unit within the content receiver;  
5                 a distribution network coupling the monitoring computer to the content  
6 receiver;  
7                 a general purpose processor within the content receiver; and

8                   an access control processor that monitors program execution on the  
9 general purpose processor and reports security anomalies to the monitoring computer.

1                   16.       The conditional access system for remotely controlling functional  
2 units in the content receiver as recited in claim 15, wherein a headend comprises the  
3 monitoring computer.

1                   17.       The conditional access system for remotely controlling functional  
2 units in the content receiver as recited in claim 15, wherein functional unit is chosen from  
3 a group consisting of a resource and an object.

1                   18.       The conditional access system for remotely controlling functional  
2 units in the content receiver as recited in claim 15, further comprising a plurality of  
3 content receivers, wherein each of the plurality of receivers comprises: the functional  
4 unit, a general purpose processor and the access control processor.